R E P O R T R E S U M E S

ED 011 917 VT 000 036

A STUDY OF THE PERFORMANCE OF LIMITED STATUS STUDENTS COMPARED TO REGULAR GRADUATE STUDENTS IN AGRICULTURE.

BY- JUERGENSON, E.M.

PUB DATE MAR 66

EDRS PRICE MF-$0.09 HC-$0.52 13P.

DESCRIPTORS- *AGRICULTURAL EDUCATION, *LOW ACHIEVERS, *GRADUATE STUDY, *TEACHER EVALUATION, GRADE POINT AVERAGE, *EFFECTIVE TEACHING, ENTERPRISE, UNIVERSITY OF CALIFORNIA AT DAVIS

STUDENTS IN THE DEPARTMENT OF AGRICULTURAL EDUCATION AT THE UNIVERSITY OF CALIFORNIA AT DAVIS WHO DO NOT HAVE THE 2.5 GRADE POINT AVERAGE REQUIRED FOR ADMISSION TO THE GRADUATE SCHOOL ENTER AS LIMITED STATUS STUDENTS, PROVIDED THERE IS ADDITIONAL EVIDENCE OF TEACHER POTENTIAL, AS DETERMINED BY A JURY WHICH SUBJECTIVELY EVALUATES THE CANDIDATE'S FUTURE PERFORMANCE. THIS STUDY ATTEMPTS TO ASSESS ON-THE-JOB TEACHER PERFORMANCE OF 21 LIMITED STATUS STUDENTS AND 49 REGULAR GRADUATE STUDENTS BY USE OF A THEORETICAL SALARY SCALE, IN WHICH THE ADMINISTRATOR AND THE REGIONAL SUPERVISOR WERE ASKED TO INDICATE WHAT SALARY SHOULD BE PAID EACH TEACHER IN TERMS OF HIS PRESENT EFFECTIVENESS. THE FINDINGS INDICATED--(1) BOTH GROUPS PERFORMED EQUALLY WELL WHEN TEACHING, (2) FOR THE LIMITED STATUS STUDENTS, THERE WAS NO RELATIONSHIP BETWEEN PERFORMANCE AS TEACHERS AND THEIR UNDERGRADUATE GRADE POINT AVERAGE, (3) FOR THE REGULAR GRADUATE STUDENTS, A SIGNIFICANT RELATIONSHIP EXISTED BETWEEN PERFORMANCE AS TEACHERS AND GRADES, AND (4) THERE WAS A SIGNIFICANT DIFFERENCE IN ALL GRADES RECEIVED BY THE TWO GROUPS AT THE POST GRADUATE LEVEL, WITH THE LIMITED STATUS STUDENTS LAGGING BEHIND. (FA)

ED011917

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

A STUDY OF THE PERFORMANCE OF LIMITED STATUS STUDENTS COMPARED TO REGULAR GRADUATE STUDENTS IN AGRICULTURE

E. M. Juergenson, Associate Professor
Department of Agricultural Education
University of California, Davis
March, 1966

VT 00036

A Study of the Performance of Limited Status Students Compared to Regular Graduate Students in Agriculture

The preparation of superior teachers involves a variety of factors, few of which are definite, most of which are illusive. This makes it particularly difficult, in many cases, to ferret out those characteristics which should be sought in selecting teacher candidates. A trait that seems an asset in terms of one person's total personality may have little relevance in another. Understandably then, a teacher's future performance is often unpredictable, thus giving rise to two closely related questions: Is teaching a science or an art? Who (or at least what characteristics) makes a good teacher? In answer to the first question, there are probably elements of both art and science in the performance of a good teacher. The second question, however, is less easy to answer--who and what become indistinct and hazy. Equally nebulous, for the same reasons, is a just and accurate evaluation of teacher performance itself; yet in the face of little objective criteria for evaluation the process continues, upon occasion with questionable accuracy, at all levels in the profession.

Most will agree that preparing teachers is a long, continuous process, but one in which critical plateaus of effort and achievement may be encountered. One such plateau is the student-teaching experience, whereas the acquiring of the many technical skills needed may be a long, uninterrupted continuum.

While there are many criteria for selecting desirable teacher candidates, there are no established criteria that everyone would agree to; therefore, it is important not to overlook any aspects in the background or performance of possible new teachers. Some evidence, such as grade point average, is objective and easily measured. The assumption is generally made that a high grade point average is a desirable criterion to use in selecting candidates. While this may be true generally, experience indicates that grade point is not always infallible, and that many other items contribute to and are related to the successful performance of a teacher.

A comprehensive study to determine the relationship between teaching, in terms of total performance and performance in nine functions of teaching agriculture, and undergraduate academic achievement in toto and in each of twelve disciplines was completed in 1965 at the University of Maryland.[1] Findings of this study show only minor relationship between undergraduate academic achievement and teaching performance, even though the relationship was examined for a number of disciplines as well as for total undergraduate academic achievement.

There is a need to refine the relationship between grade point average and teacher performance. There is also need to clarify what other traits, such as drive, cooperativeness, willingness to work, etc., are most significant and applicable to success in teaching. Finally, what is the inter-relationship between grade point averages and indications of teacher potential and eventual teacher performance?

An opportunity to gain insight into these problems evolved with the initiation of the limited status program at the University of California at Davis. This program, started in 1958, allows certain students, whose grade point averages are not high enough to enter the University as regular graduate students, to enroll for post graduate work. In order to obtain the standard credential to teach agriculture in California, a minimum of one year of graduate work is required. In the Department of Agricultural Education, undergraduates must obtain at least a 2.5 (4 point system) grade point average in all upper division courses in order to be admitted to Graduate School. Those with a lower grade point average may be permitted to enter in limited status to work for a credential, provided there is additional evidence of teacher potential, as determined by a jury who, from their experience, subjectively evaluate the candidate's future performance.

[1]V. R. Cardozier, "Undergraduate Academic Achievement and Teaching Performance," Misc. Publication No. 559, September, 1965, Maryland Agricultural Experiment Station, University of Maryland, College Park, Maryland.

The number of persons admitted under this program is small. Nevertheless, it presented an opportunity to test the hypotheses regarding these kinds of candidates.

A theoretical salary scale[1] was the instrument used to measure on-the-job teacher performance.

Hypotheses to be Tested

1. There is no difference between the performance of teachers in limited status and regular students.
2. There is no correlation between the performance of teachers and their grade point averages in undergraduate or post graduate work.
3. There is no difference between grade point averages of limited status students and regular graduate students during the post graduate year.
4. There is no difference between regional supervisors and administrators in their performance rating of graduate or limited status students.

Summary of Findings

The study indicates that limited status students perform, when teaching, as effectively as those students admitted in regular graduate standing.

For limited status students there is no relationship between their performance as teachers and their undergraduate grade point average. There is still no relationship between their performance and over-all grades or on-campus grades received during their post graduate year; however, the relationship is much closer than during their undergraduate years.

For regular graduate students a significant relationship exists between their performance as teachers and their grades, both for on-campus grades and

[1] Edwin L. Rumpf, "A Basis for the Selection of Vocational Industrial Education Teachers for Employment in Pennsylvania," Thesis, Ed.D., 1954, Pennsylvania State College.

over-all grade point average. On-campus grades are from courses taught mainly outside the Agricultural Education Department, primarily technical courses, and over-all grades include these, plus their grades received during the student teaching period.

While their performance as teachers in the field was almost identical, considerable difference still exists in all grades received between the two groups. Limited status students continued to lag behind regular graduate students in post graduate work, as measured by grades both for on-campus courses and over-all grade point averages. The difference was statistically significant.

Performance was measured by the regional supervisor in agricultural education and the administrator in the local high school under whom the teacher was working. The evaluation instrument used was the theoretical salary scale previously validated for this group to measure success in teaching vocational agriculture. Administrators and regional supervisors agreed on their evaluations; their performance ratings for individual teachers were not significantly different.

Procedure

Since 1958 the Department of Agricultural Education has prepared 122 new teachers of agriculture who have since entered teaching. This does not include those enrolled last year (1964-65) or the current student teachers (1965-66). Only one or two persons per year complete the program and do not enter teaching; often none of them seek other employment. Most of this group enter the teacher preparation year via the regular route--Graduate School--so the number completing the program in limited status is small. All candidates were included in the study, but comparisons were made on unequal groups, as there were 20 in the limited status group and 49 in graduate school during the years studied.

The accuracy of evaluation is at best a difficult item to measure, particularly in the social sciences. However, agriculture teacher performance

had been previously validated in a study at Pennsylvania State University.[1] In this study an instrument called a theoretical salary scale proved effective and valid for measuring success in teaching. While the single most effective evaluator was the administrator, the teacher trainer and regional supervisor's evaluations correlated with the administrator's in evaluating teachers. In this research, administrator and regional supervisor evaluations of teacher performance were used. Here again the ratings made by these two groups correlated at the 5 percent level of significance, as indicated in Table I. (A copy of the rating instrument is included in the appendix.) In this rating scale, evaluators are asked to indicate what salary a teacher should be paid in terms of his effectiveness as a teacher in the school and community in which he is teaching.

Table I

Relationship Between Performance Ratings
by Regional Supervisor and Administrator

Comparison	N	r	Level of Significance 5%
Limited Status Students	21	.72	.433
Regular Graduate Students	49	.52	.281
Combined Group	70	.56	.235

The actual range of figures is based on current salaries in the year during which the study was done. As the evaluations made by the administrator and regional supervisor correlated, the comparison between limited status and regular graduate students was made by averaging ratings made by the two evaluators.

[1]Elwood M. Juergenson, "The Relationship Between Success in Teaching Vocational Agriculture and Ability to Make Sound Judgments as Measured by Selected Instruments," Dissertation, Ph.D., 1958, Pennsylvania State University.

The most important finding of the study is indicated in Table II. A comparison of performance ratings indicates that limited status students and graduate students perform equally well, as measured by the t test. The 5 percent level of significance was selected as the confidence limit for all calculations.

Table II

Comparison of Performance Rating Between
Limited Status and Regular Students

Student	Performance Rating	t Test	Level of Significance 5%
Limited Status	10,107.14	.4545	2.000
Regular Graduate	10,293.36		

Only a slight difference, 10,107.14 compared to 10,293.36, was noted for limited status versus graduate students. These figures represent a mean of the average of all ratings, but a comparison of individual ratings used in the t test showed no significant difference.

Table III indicates the relationship between performance ratings and grade point averages for both groups. The two groups performed differently in this category, as the performance of limited status students showed no relationship to grades, whereas for graduate students, both for on-campus and over-all grades, a relationship was indicated between this factor and performance.

Table III

Relationship Between Performance Ratings and Grade Point Average for Limited Status Students and Regular Students

Comparison	N	Value of r	Level of Significance 5%
Limited Status			
Performance and Undergraduate Grade-Point Average	15	.0478	.514
Performance and Over-All Grade-Point Average	21	.423	.433
Performance and On-Campus Grade-Point Average	20	.321	.444
Regular Graduate			
Performance and Over-All Grade-Point Average	49	.449	.281
Performance and On-Campus Grade-Point Average	49	.355	.281

Table IV shows the actual grade-point averages of the two groups of students and includes the undergraduate grade-point averages for limited status students.

Table IV

Comparison of Grade Point Averages of Limited Status and Regular Graduate Students in Agriculture

(Based on 4 point scale)

Semester Grade	Limited Status	Regular Graduate
Undergraduate G.P.A.	2.28	2.5+
Over-All G.P.A. (U.C.D.)	3.12	3.29
On-Campus G.P.A. (U.C.D.)	2.81	3.14
Performance Rating	10,107.14	10,293.36

No accurate undergraduate figures were available for graduate students except that in all cases it was above 2.5, and often considerably higher than this.

There was a significant difference between the two groups, both for on-campus and over-all post graduate grades, as indicated in Tables V and VI.

Table V

Comparison of On-Campus Post Graduate Grade-Point Average Between Limited Status and Regular Graduate Students

Student	Grade-Point Average	t Test	Level of Significance 5%
Limited Status	2.81	2.94	2.000
Regular	3.14		

Table VI

Comparison of Over-All Post Graduate Grade-Point Averages Between Limited Status and Regular Graduate Students

Student	Grade-Point Average	t Test	Level of Significance 5%
Limited Status	3.12	2.36	2.000
Regular	3.29		

In terms of grades, all students tended to maintain the same grade-point average, even though other measures of achievement may show different results. However, it should be noted that limited status students selected as potential teachers raised their average grade point to within .17 of the regular students when over-all grade-point average was considered, even though they started considerably below the 2.5 minimum which is necessary to enter Graduate School.

Recommendations

Admittedly, the specific characteristics of good teachers are intangible, yet when persons with grades lower than those normally accepted as necessary for graduate work are selected as teacher candidates, they perform well provided they are chosen on the nebulous basis of having teacher potential. This indicates that identification and evaluation of these characteristics would be of use to teacher education programs and to those individuals who wish to evaluate themselves.

While undergraduate grades are important, there is evidence that they are not the only predictive criteria for effective teachers at the secondary level. However, the trend in grades may be desirable to watch as an early indicator of the success of the subjective evaluations; those with low grades who later proved to be good teachers raised their grade-point average. In fact, during post graduate work all candidates improved their grades, even in highly competitive on-campus technical courses, thus indicating a continuing upward trend.

Students with grades not high enough to enter Graduate School should understand that admission to post graduate programs under limited status is not automatic. In each case, additional evidence of dedication, drive, and past performance in working effectively with young people and student organizations was required and evaluated before these persons were admitted to the teacher education program. The study indicates, however, that when this is done well and the evidence is favorable, effective teachers can be developed from this group of candidates.

Appendix

Name_____

This scale is a device designed to measure the effectiveness of a teacher of vocational agriculture.

Indicate by a check mark opposite the appropriate figure your evaluation of what the teacher of vocational agriculture named above should be paid. Consider his present effectiveness as a teacher in your school and his contribution as a member of your community in arriving at an evaluation.

Salary Range	Over-all Rating	Instructions for Rating
$14,000		
$13,500		
$13,000		
$12,500		
$12,000		
$11,500		
$11,000		
$10,500		
$10,000		
$ 9,500*		
$ 9,000		
$ 8,500		
$ 8,000		
$ 7,500		
$ 7,000		
$ 6,500		
$ 6,000		

Assume that $9,500 per year is an average salary for a teacher doing a fair teaching job and that the salary range is from $6,000 (low) to $14,000 (high) These are current 1964-65 statewide figures.

Disregard the teacher's present salary.

Do not reward for years of service nor attempt to predict future performance.

Check opposite the salary which, in your opinion, should be paid to the above teacher in terms of his present effectiveness.

*Average salary of all teachers of agriculture in California, 1964-65.